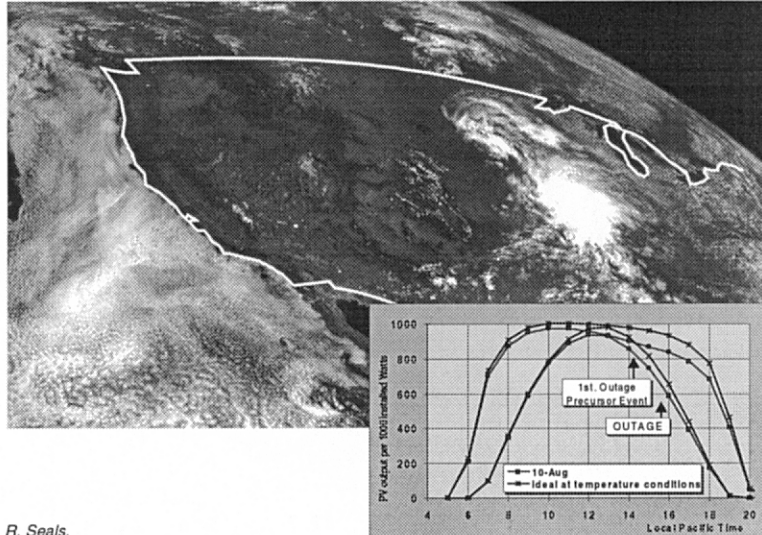


The Aug. 10, 1996 WSCC Power Outage

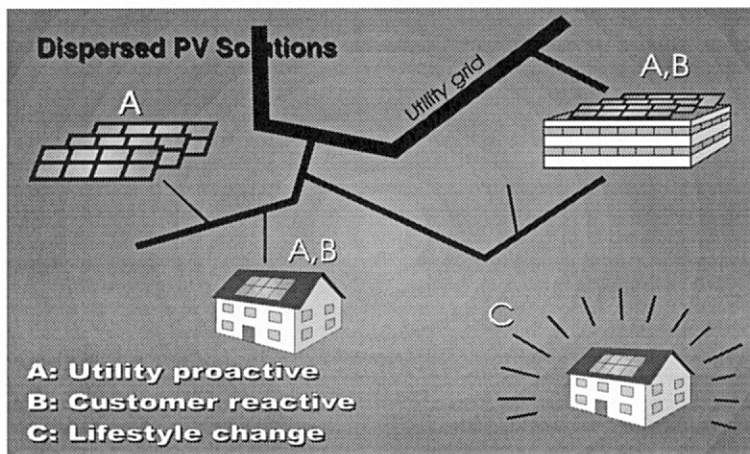
GOES-9 view of the western USA at 11:00am



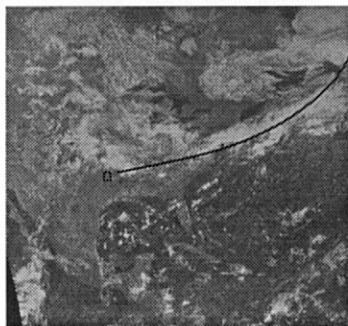
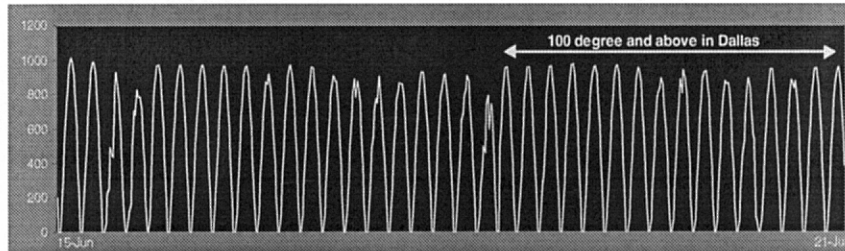
R. Perez, R. Seals,
H. Wenger, T. Hoff and C. Herig

Aug. 10, 1996 WSCC Power Outage

R. Perez, R. Seals,
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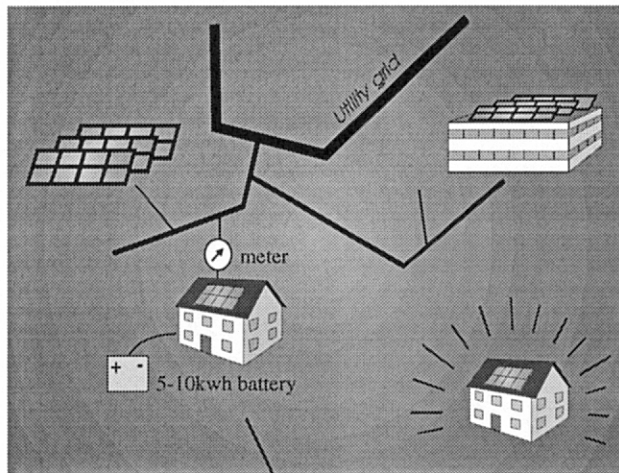


Had a dispersed PV resource throughout the WSCC service area been in place, the outage would have likely been prevented



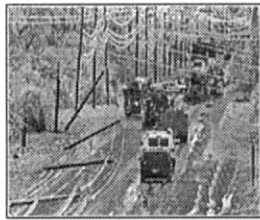
**SOLAR RESOURCE
FOR 31 DAYS OF HEAT
WAVE
IN DALLAS, TEXAS**

Perez et al.



**Grid-Connected PV
with emergency storage**

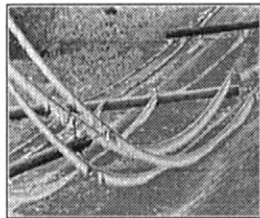
Perez et al., ASRC



Courtesy CNN

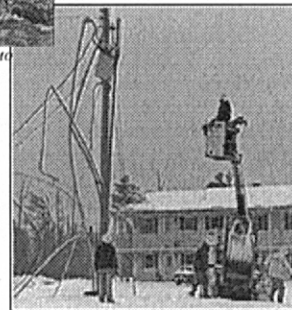


Courtesy NYSEM



Courtesy CNN

Millions out of power
Many for several weeks



Courtesy Niagara Mohawk

Ice Storm 98

- New York
- New England
- Quebec



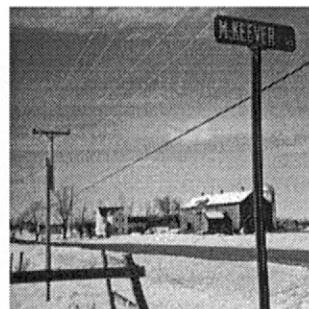
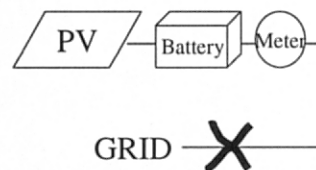
Courtesy Justin Byington



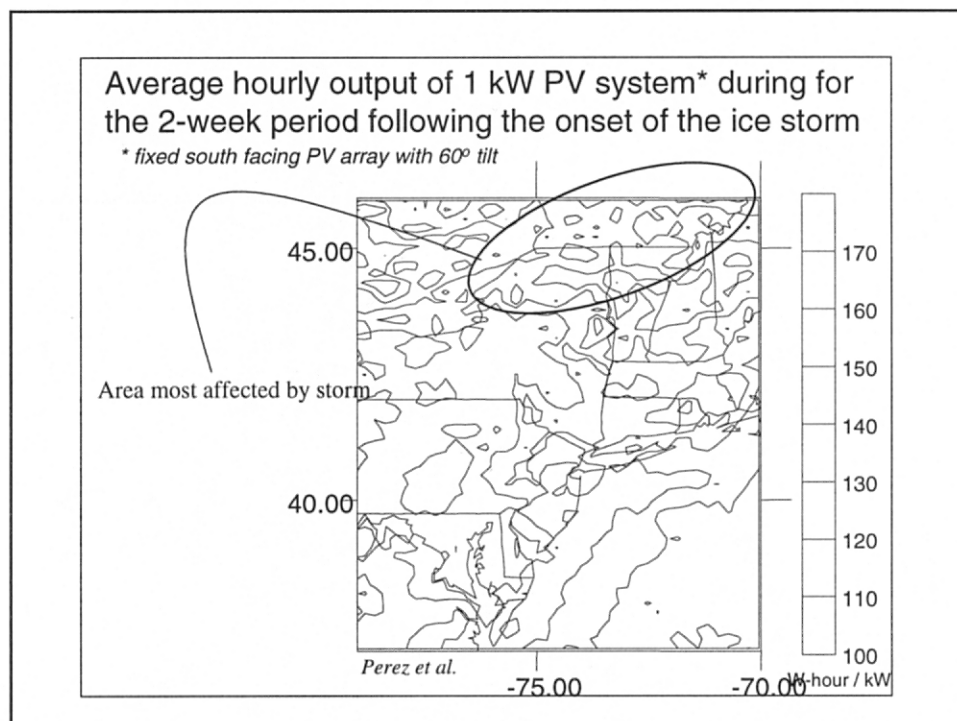
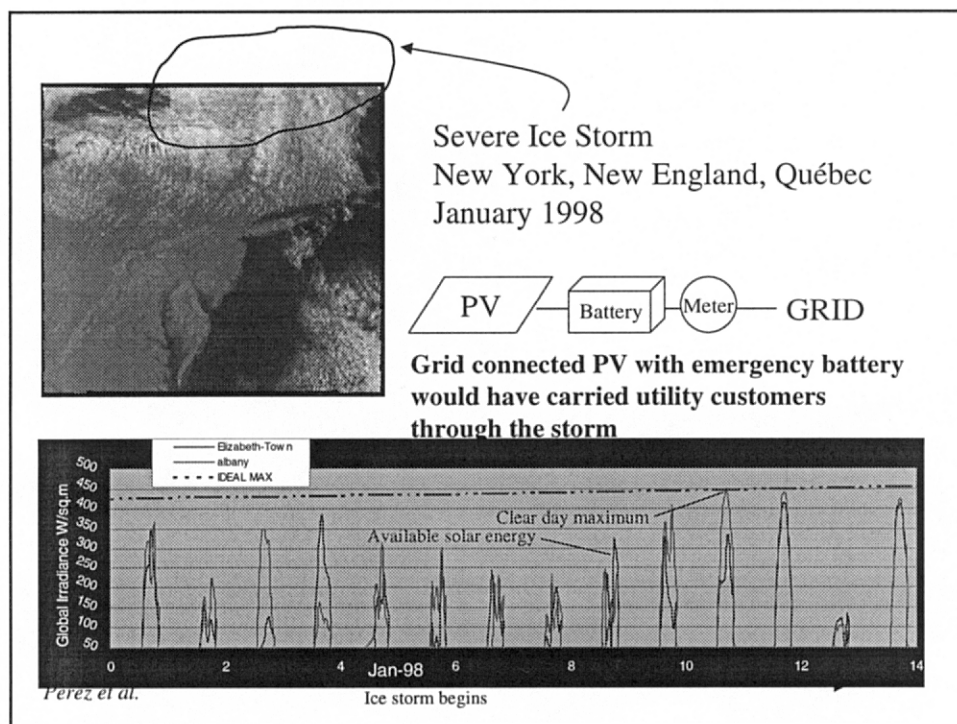
Perez et al.

Courtesy Niagara Mohawk

Ice storm 98 Net metered PV

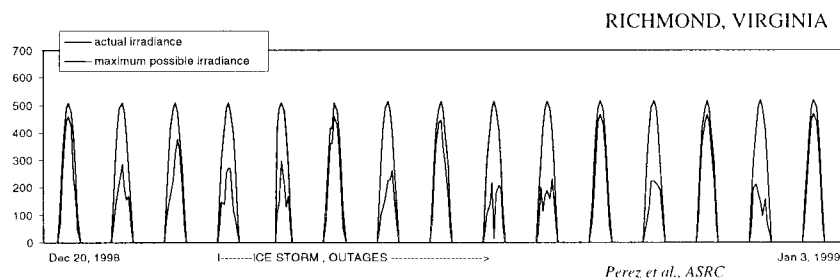
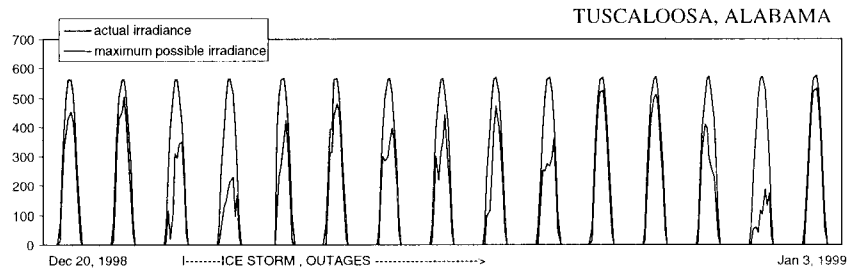


Courtesy Justin Byington



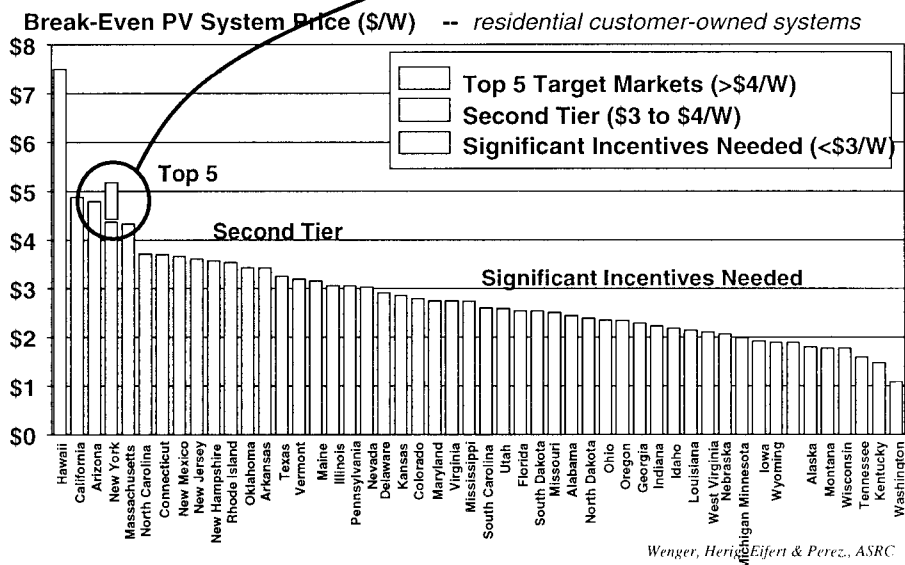
Presentation: Operational PV and Solar Energy Applications by Richard Perez, ASRC

DECEMBER 1998 ICE STORMS, SOUTHEASTERN US



State-by-state ranking

Added outage reliability value for residential PV



Source: Niche Markets for Grid-Connected Photovoltaics, Pacific Energy Group, 1996

Presentation: Operational PV and Solar Energy Applications by Richard Perez, ASRC